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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/749,015

12/29/2003

Yong Chul Kim

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SQUIRE, SANDERS & DEMPSEY L.L.P  
PATENT DEPARTMENT  
ONE MARITIME PLAZA, SUITE 300  
SAN FRANCISCO, CA 94111-3492

EXAMINER

ELVE, MARIA ALEXANDRA

ART UNIT

PAPER NUMBER

1725

MAIL DATE

DELIVERY MODE

05/03/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/749,015	Applicant(s) KIM ET AL.	
	Examiner M. Alexandra Elve	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 & 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claussen (USPN 3,418,446).

Claussen discloses a welding wire for gas shielded arc welding. The flux cored electrode is constructed from a hollow steel sheath, which is initially flat and then formed into a channel shape. The strip is then filled, butt welded and drawn down by dies. The content of the electrode is particulate or granular form. Optimum fill of the electrode is 16% by weight; however, some wires are further filled with silica sand that is they are more greatly packed. The strength difference between the less packed and more packed (silica sand addition) is: 81/78 yielding a ratio of about 1.1.

Claussen does not teach the equation (1) in applicant's claim. The electrode disclosed by Claussen possesses all the properties applicant attributes to the electrode.

Although the prior art does not teach the equation claimed, it does disclose the electrode and the approximate ratio. It has been held that there is no invention in the discovery of a general formula if it covers a product described in the prior art. See In re Cooper et al. 57 USPQ 117.

Art Unit: 1725

The exact ratio, as taught by Applicant's claim is not disclosed in the prior art, however, the prior art closely approximates applicant's claimed ratio. It has been held that one of ordinary skill in the art at the time of the invention would have considered that ratio to be obvious because close approximation is considered to establish a prima facie case of obviousness. See In re Malagari 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (USPN 6,649,872).

Kato et al. discloses a flux cored electrode, which is constructed of a steel sheath formed into a U-shape, filled and drawn. Fill percentages are shown in table 4 and corresponding strengths in table 10. The maximum strength ratio is: 582/524 yielding a ratio of 1.1.

Kato et al. does not teach the equation (1) in applicant's claim. The electrode disclosed by Kato et al. possesses all the properties applicant attributes to the electrode.

Although the prior art does not teach the equation claimed, it does disclose the electrode and the approximate ratio. It has been held that there is no invention in the discovery of a general formula if it covers a product described in the prior art. See In re Cooper et al. 57 USPQ 117.

The exact ratio, as taught by Applicant's claim is not disclosed in the prior art, however, the prior art closely approximates applicant's claimed ratio. It has been held that one of ordinary skill in the art at the time of the invention would have considered

Art Unit: 1725

that ratio to be obvious because close approximation is considered to establish a prima facie case of obviousness. See In re Malagari 182 USPQ 549, Titanium Metals v. Banner 227 USPQ 773, In re Nehrenberg 126 USPQ 383.

The prior art discloses a product substantially similar to the claimed product, differing only in the manner by which it is produced. It has been held that one of ordinary skill in the art at the time of the invention would have considered the claimed compositions to be obvious because of the similarity in the properties and closely approximating ranges. The burden falls to the applicant to show that any process steps associated with the claimed product result in a materially different product from those of the prior art, because there is nothing in the record before the examiner to reasonably conclude that applicant's product differs in kind from those obtained by the reference. See In re Brown 173 USPQ 685 and In re Fessmann 180 USPQ 324.

### ***Response to Arguments***

Applicant's arguments filed 2/15/07 have been fully considered but they are not persuasive.

Applicant argues that the flux cored wires of the references are different than that of instant claims because they are used for welding different materials. The examiner respectfully notes that intended use is not germane to determining patentability.

Applicant argues that instant claims are directed to beam meandering and Claussen and Kato do not disclose this limitation. If a composition is physically the

Art Unit: 1725

same, it must have the same properties. A chemical composition and its properties are inseparable. Therefore the prior art teaches the same chemical composition, the properties of instant claims are necessarily present. See *In re Spada*, 15 USPQ 2d 1655, 1658.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Alexandra Elve whose telephone number is 571-272-1173. The examiner can normally be reached on 6:30-3:00 Monday to Friday.

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

April 29, 2007.



M. Alexandra Elve  
Primary Examiner 1725